

0038

OK Incoming  
C/015/0032

**From:** "Karla Knoop" <kknoop@jbrenv.com>  
**To:** "'Shaver, Dave'" <dshaver@coalsource.com>, "'Jeffrey Studenka'" <jstuden...  
**Date:** 4/9/2008 1:06 PM  
**Subject:** Crandall mine water discharge - lab report for April 1 sample and trend/compliance information  
**Attachments:** Crandall 2008 UPDES compliance.xls; Crandall 2008 wq trends.xls; Crandall 02 April 1 08.pdf

All,

Please see attached Crandall Canyon mine water discharge laboratory results for the sample taken Tuesday, April 1st. Excel files showing trends and UPDES permit compliance are also attached.

Regards,

Karla Knoop, Hydrologist

jbr Environmental Consultants, Inc.

phone (435) 637-9645

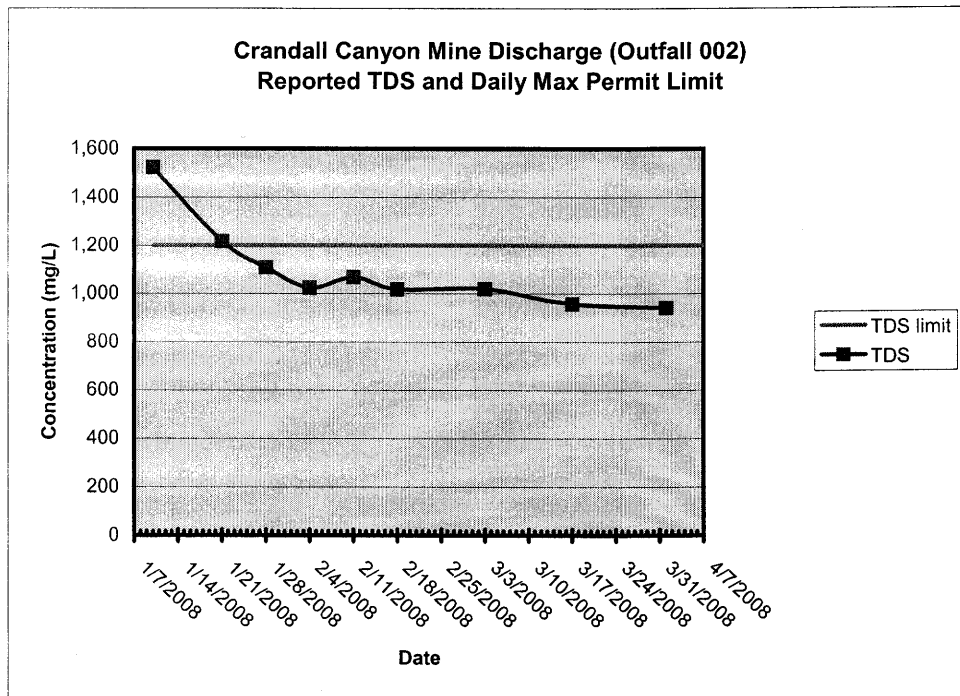
fax (435) 637-8679

<mailto:kknoop@jbrenv.com> kknoop@jbrenv.com

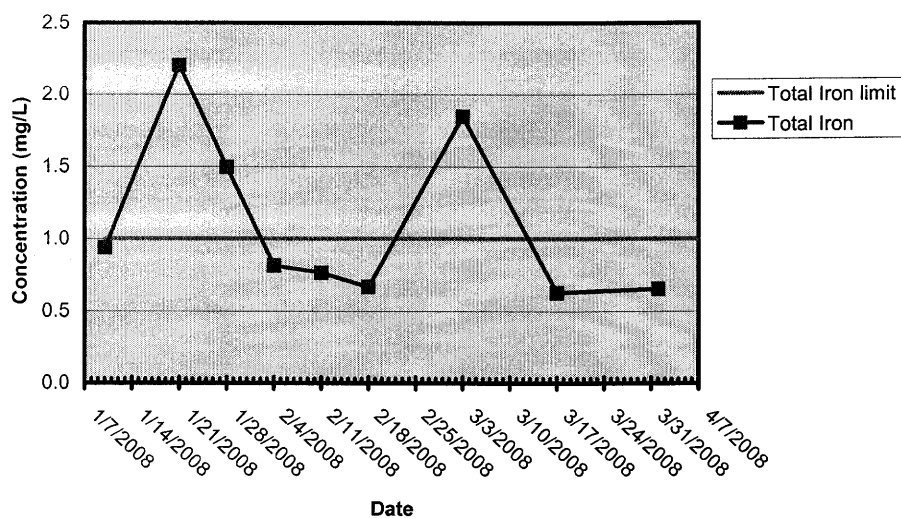
**UtahAmerican Energy, Inc., Genwal Resources, Inc., Crandall Canyon Mine**  
**In-mine Groundwater Discharge**  
**Comparison of 2008 Data with UPDES Daily Maximum Permit Effluent Limitations (mg/L)**

Date	Outfall	TDS		TSS		Fe (tot)		Oil & Grease	
		Limit	Reported	Limit	Reported	Limit	Reported	Limit	Reported
10-Jan-08	002	1,200	1,523	70	6	1.0	0.937	10	<5
21-Jan-08	002	1,200	1,218	70	10	1.0	2.204	10	<5
28-Jan-08	002	1,200	1,108	70	12	1.0	1.494	10	<5
4-Feb-08	002	1,200	1,025	70	4	1.0	0.815	10	<5
11-Feb-08	002	1,200	1,068	70	<4	1.0	0.765	10	<5
18-Feb-08	002	1,200	1,018	70	<4	1.0	0.668	10	<5
3-Mar-08	002	1,200	1,019	70	35	1.0	1.846	10	<5
17-Mar-08	002	1,200	957	70	4	1.0	0.626	10	<5
1-Apr-08	002	1,200	941	70	4	1.0	0.653	10	<5
7-Apr-08	002	1,200		70		1.0		10	
14-Jan-08	001	1,200	1,687	70	10	1.0	0.758	10	<5

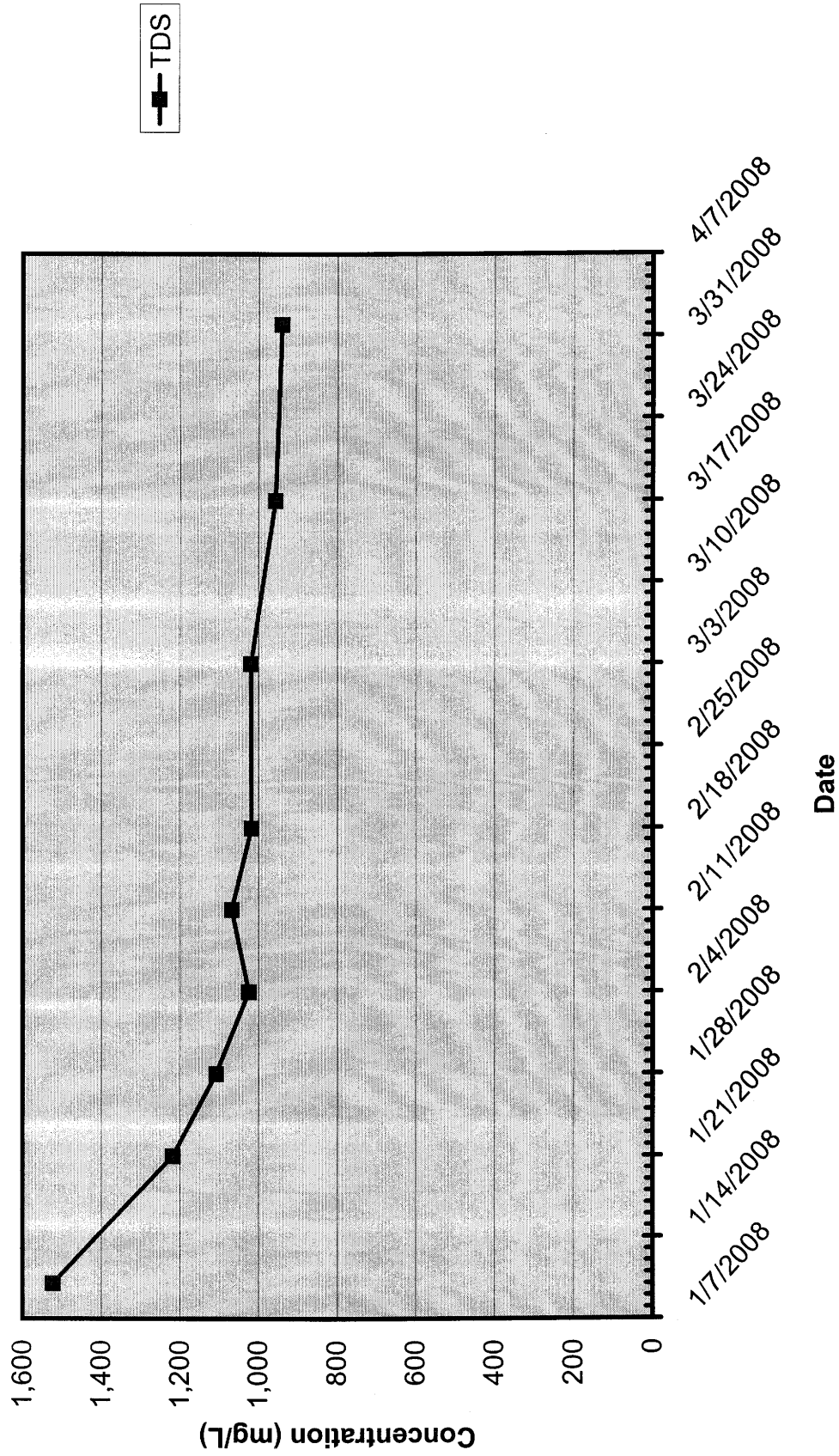
- Note 1: 14-Jan-08 sample is discharge from the sediment pond. It was influenced by water previously retained in pond as well as in-mine groundwater that had flowed overland to the pond.
- Note 2: In addition to the TDS daily maximum limit of 1,200 mg/L, the permit also has a limit of 500 mg/L for TDS 30-day average, and Genwal participates in a salinity offset program to ensure that this limit is in compliance.
- Note 3: In addition to the TSS daily maximum limit of 70 mg/L, the permit also has limit of 25 mg/L for TSS 30-day average and a limit of 35 mg/L for TSS 7-day average.



**Crandall Canyon Mine Discharge (Outfall 002)**  
**Reported Total Iron and Daily Max Permit Limit**



# Crandall Canyon Mine Discharge (Outfall 002) TDS Trend





General Offices: P.O. Box 995 Price, UT. 84501 (435)637-8855  
Laboratory: 65 North 300 East Price, UT. 84501

Report Date

4/9/2008

Client

UtahAmerican Energy Inc.  
Genwal Resources, Inc.  
PO Box 1077  
Price, UT. 84501  
Dave Shaver  
(435)888-4017

Sample I.D.

002

Sampled By: KDK

Date: 4/1/2008  
Time: 11:45

Received  
Date: 4/1/2008  
Time: 12:45

Field Measurements

<u>Cond. uS</u>	<u>Temp. C</u>	<u>pH</u>	<u>D.O. ppm</u>	<u>Turbidity NTU</u>
1279	9.7	8.09	10.4	

Notes:


Lab I.D. #: 593

Mine Code 08

Site Code 40

**Certificate of Analysis**

Analyte	Results	Units	MRL	Method	Date	Time	Analyst
<u>Wet Chem.</u>							
Oil & Grease	<5	mg/L	5	EPA 413.1	4/1/2008	13:31	SB
Solids, Total Dissolved	941	mg/L	0.010	EPA 200.7	4/2/2008	15:57	SB
Solids, Total Suspended	4	mg/L	0.010	EPA 200.7	4/2/2008	15:57	SB
<u>Metals by ICP</u>							
Aluminum, Dissolved	0.14	mg/L	0.02	EPA 200.7	4/3/2008	12:24	SB
Iron, Dissolved	0.027	mg/L	0.010	EPA 200.7	4/3/2008	12:24	SB
Iron, Total	0.653	mg/L	0.010	EPA 200.7	4/8/2008	18:23	SB
Nickel, Dissolved	0.086	mg/L	0.003	EPA 200.7	4/3/2008	12:24	SB
Zinc, Dissolved	0.153	mg/L	0.005	EPA 200.7	4/3/2008	12:24	SB

  
Brandon Pierce  
Technical Director

All reported results meet the requirements of NELAC, except for Balance and Hardness.  
Balance and Hardness are calculated from certified results.